Remarks

Please cancel claims 1-8 and 50. New claims 51-62 are added. No new matter is added by the new claims as the originally-filed application presents exemplary embodiments of the invention shown in Figs. 2 and 4 which support the new claims. Claims 51-62 are pending in the application for consideration.

Claims 1-8 and 50 stood rejected under 35 U.S.C. §112, first paragraph. Claims 1-8 and 50 stood rejected under 35 U.S.C. §103 as being unpatentable over Mano (US Patent No. 5,814,886) in view of Wolf (Vol. 3). Claims 1-8 and 50 stood rejected under 35 U.S.C. §103 as being unpatentable over En et al. (US Patent No. 5,990,524) in view of Wolf (Vol. 3).

Regarding the §112, first paragraph rejection, the Examiner alleged that the recitation of "the conductive line not being a gate electrode" in independent claims 1 and 5 was not supported by the original disclosure. New claims 51-62 do not recite such language, and therefore, the §112 rejection is overcome and should be withdrawn.

New claim 51 recites a conductive line formed over a substrate and a diffusion region, the conductive line having a generally uniform lateral width, and a portion of the conductive line over the diffusion region comprising an entirety of the lateral width of the conductive line received directly over the diffusion region. Mano, En and Wolf fail to teach, singularly or in any combination, a portion of the conductive line over the diffusion region comprising an entirety of the lateral width of the conductive line received directly over the diffusion region. For example, Fig. 3 of Mano teaches a gate electrode G2 having only a portion

of a lateral width formed directly over a N+ diffusion region. Regarding En, Fig. 4 teaches a conductive line 16 having **no** portions formed directly over diffusion regions 24a and 24b. Regarding Wolf, such reference teaches a gate G having only a portion of a lateral width formed directly over a n+ diffusion region (Fig. 4-2(a) and (b) at page 137 of volume 3; and Fig. 4-1 (a) and (b) at page 135 of volume 3). Accordingly, Mano, En and Wolf fail to teach, singularly or in any combination, a portion of the conductive line over the diffusion region comprising **an entirety** of the lateral width of the conductive line received directly over the diffusion region as recited in claim 51. The art of record fails to teach a positively recited limitation of claim 51, and therefore, claim 51 is allowable. Applicant respectfully requests allowance of claim 51 in the next office action.

Claims 52-54 depend from independent claim 51, and therefore, are allowable for the reasons discussed above with respect to the independent claim, as well as for their own recited features which are neither shown or taught by the art of record.

New claim 55 recites a conductive line formed over a substrate and a diffusion region, and a conductive material interconnecting the conductive line and the diffusion region. Claim 55 further recites an entirety of the conductive material received directly over the diffusion region. Mano, En and Wolf fail to teach, singularly or in any combination, an entirety of the conductive material received directly over the diffusion region. For example, Fig. 3 of Mano teaches an interconnect L1 having only a portion directly over a N+ diffusion region. Regarding En, Fig. 4 teaches a plug material 50 having only a portion directly

over diffusion region 24b. Regarding Wolf, such reference does not teach a conductive material interconnecting the conductive line and the diffusion region as recited in claim 55 (Fig. 4-2(a) and (b) at page 137 of volume 3; and Fig. 4-1 (a) and (b) at page 135 of volume 3). Accordingly, Mano, En and Wolf fail to teach, singularly or in any combination, an entirety of the conductive material received directly over the diffusion region as recited in claim 55. The art of record fails to teach a positively recited limitation of claim 55, and therefore, claim 55 is allowable. Applicant respectfully requests allowance of claim 55 in the next office action.

Claims 56-58 depend from independent claim 55, and therefore, are allowable for the reasons discussed above with respect to the independent claim, as well as for their own recited features which are neither shown nor taught by the art of record.

Claim 59 recites a conductive material interconnecting a conductive line and a diffusion region, a portion of the conductive material received directly over the conductive line, and an entirety of the portion of the conductive material received directly over the diffusion region. Mano, En and Wolf, singularly or in any combination, fail to teach such recited limitations of claim 59. For example, Fig. 3 of Mano teaches an interconnect L1 having a portion directly over gate electrode G2. However, an entirety of the portion of the interconnect L1 is **not** directly over the N+ diffusion region. Regarding En, Fig. 4 teaches a plug material 50 having a portion directly over conductive line 16. However, an entirety of the portion of the plug material 50 is **not** directly over diffusion region

24b. Regarding Wolf, such reference does not teach a conductive material interconnecting a conductive line and a diffusion region as recited in claim 59 (Fig. 4-2(a) and (b) at page 137 of volume 3; and Fig. 4-1 (a) and (b) at page 135 of volume 3). Accordingly, Mano, En and Wolf fail to teach, singularly or in any combination, an entirety of the portion of the conductive material received directly over the diffusion region as recited in claim 59. The art of record fails to teach a positively recited limitation of claim 59, and therefore, claim 59 is allowable. Applicant respectfully requests allowance of claim 59 in the next office action.

Claims 60-62 depend from independent claim 59, and therefore, are allowable for the reasons discussed above with respect to the independent claim, as well as for their own recited features which are neither shown nor taught by the art of record.

This application is now believed to be in immediate condition for allowance, and action to that end is respectfully requested. If the Examiner's next anticipated action is to be anything other than a Notice of Allowance, the undersigned respectfully requests a telephone interview prior to issuance of any such subsequent action.

Respectfully submitted,

Dated: 5-21-02

By: _____

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application Serial No. 09/512,978
Filing Date ..... February 24, 2000
Inventor ..... Robert Kerr et al.
Assignee ..... Micron Technology, Inc.
Group Art Unit 2814
Examiner ..... Phat X Cao
Attorney's Docket No. MI22-1343
Title: Methods of Forming Contacts, Methods of Contacting Lines, Methods of Operating Integrated Circuitry, and Integrated Circuits

VERSION WITH MARKINGS TO SHOW CHANGES MADE ACCOMPANYING RESPONSE TO FEBRUARY 25, 2002 FINAL OFFICE ACTION TO ACCOMPANY CPA FILING

In the Claims

The claims have been amended as follows. Underlines indicate insertions and ~~strikeouts~~ indicate deletions.

Claims 1-8 and 50 are cancelled.

New claims 51-62 are added.

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